energy). If the istalation is good then the ratio is about 0.6 to 0.8. The reference energy is based on the average sunshine received by the PV panel. To canculated the reference energy u can use sensor (witch is very expensive) or a estimation based on the global horizontal sunshine. Several model of global horizontal sunshine exist. But you can't affirm that the model you'll choose is the best one for you're study. You can use different model to decrease the error of only one model. To be more accurate, we are going to do a comparativ study with the data from our building ADREAM.

ESTIMATION OF VOLTAGE STABILITY

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Consequently to several recent disturbances, voltage stability has become a major concern for Transmission System Operators. But those disturbances are difficultly predictable because of the many variables which can cause those disturbances.

The voltage stability is the way that a system can maintain a normal voltage after a disturbance. There is a lot phenomenon who can cause disturbances, if there is dysfunction on the transport line or on a generator, If the load change, or if the parameters of the system change.

The present article treats only of the disturbances cause by a change of load.

If the load change is because the electrical need increases or decrease. When the electrical need increases the current increase as well and the voltage decrease because of the resistance of the line. The disturbances also depend of the reactive power which is absorb by the load.

To solve those problems, we often use capacitor, generator, or Flexible

Alternating Current Transmission System (FACTS). The biggest problem is that we cannot predict the variation of the electrical need. That why we use several techniques to estimate the voltage stability. The Continuous Power Flow technique

(CPF) or the Saddle Node Bifurcation (SNB). This two technique estimate the global voltage stability of a system Usually, the voltage stability of a steady state power system corresponds to the maximal active power demand increase that can be supported by the system. As this global criterion does not allow an efficient localization of control actions, we propose a local voltage stability index. That why we combine the CPF with a local estimate system (ILST).